

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)
(PCT Rule 44bis.1(c))

To:

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CANTOR COLBURN LLP

Date of mailing (*day/month/year*)
29 November 2007 (29.11.2007)

Applicant's or agent's file reference
dni-0024-pct

IMPORTANT NOTICE

International application No.
PCT/US2004/013340

International filing date (*day/month/year*)
30 April 2004 (30.04.2004)

Priority date (*day/month/year*)
30 April 2003 (30.04.2003)

Applicant

DYNO NOBEL, INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO
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1211 Geneva 20, Switzerland

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference dnl-0024-pct	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2004/013340	International filing date (<i>day/month/year</i>) 30 April 2004 (30.04.2004)	Priority date (<i>day/month/year</i>) 30 April 2003 (30.04.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant DYNO NOBEL, INC.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 19 November 2007 (19.11.2007)
Facsimile No. +41 22 338 82 70	Authorized officer <div style="text-align: center;">Nora Lindner</div> e-mail: pt02.pct@wipo.int

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
FREDERIC A. SPAETH
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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference DNI-0024-PCT		Date of mailing (day/month/year) 07 NOV 2007
International application No. PCT/US04/13340		International filing date (day/month/year) 30 April 2004 (30.04.2004)
International Patent Classification (IPC) or both national classification and IPC IPC: C06C 5/00(2006.01),5/04(2006.01) USPC: 102/275.3		Priority date (day/month/year) 30 April 2003 (30.04.2003)
Applicant DYNO NOBEL INC		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion 23 July 2007 (23.07.2007)	Authorized officer Michael Carone Telephone No. 571-272-6873
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/13340

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US04/13340

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-27</u>	YES
	Claims <u>NONE</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-27</u>	NO
Industrial applicability (IA)	Claims <u>1-27</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-27 lack an inventive step under PCT Article 33(3) as being obvious over Knowlton et al. (US 2002/0035945 A1) in view of Manzara (US 5,681,904). Knowlton et al. disclose the invention substantially as claimed including delay compositions used in an initiator application, the delay composition comprising a resin such as vinyl alcohol acetate resin (see abstract; page 8, paragraph [0080]). However, Knowlton et al. does not specifically list the polymer GAP. Manzara '904 discloses a reactive polymer material, such as GAP resin that has been cross linked with a multifunctional dipolarophile material, which can be used in applications requiring a high energy material (see abstract; col. 1, lines 10-23; col. 2, lines 9-25). Arpin et al. '627 disclose GAP polymer added to the initiation portion of a detonator (abstract; col. 7, lines 10-22). In view of either Manzara or Arpin et al. it would have been obvious to one of ordinary skill in the art to select GAP polymer as the delay composition of the Knowlton et al. initiator because to do so would only utilize a well known reactive polymer in a well known application, such as in a delay composition of an initiator or detonator or fuse.

Claims 1-27 meet the criteria set out in PCT Article 33(4), and thus claims 1-27 possess industrial applicability because the subject matter claimed can be made or used in industry.